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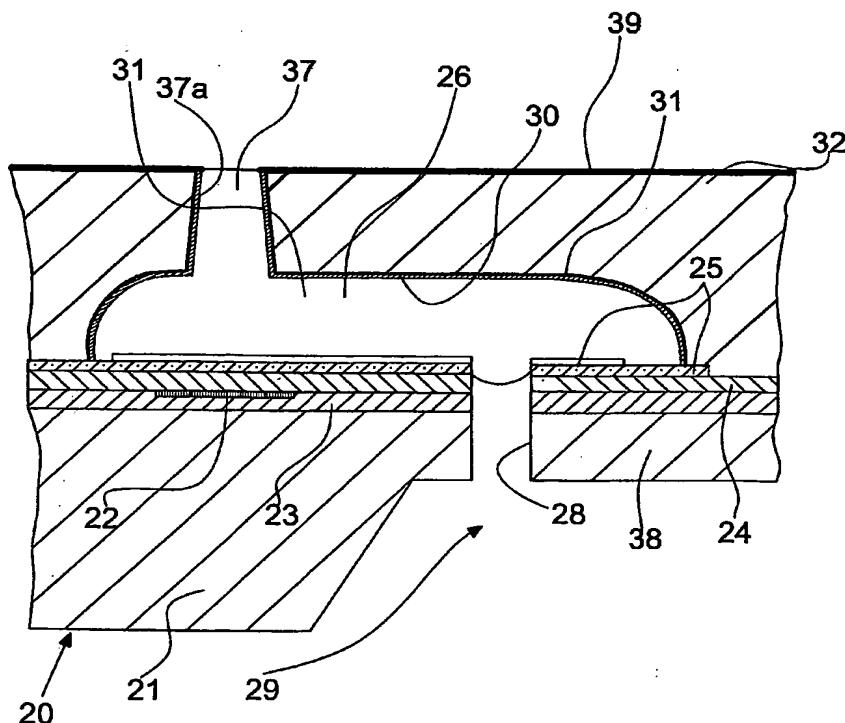
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(54) Title: PROCESS FOR PROTECTIVELY COATING HYDRAULIC MICROCIRCUITS AGAINST AGGRESSIVE LIQUIDS, PARTICULARLY FOR AN INK JET PRINTHEAD



(57) Abstract: Process for protectively coating against aggressive liquids hydraulic microcircuits made in a resin (32), particularly for an ink jet printhead, consisting of: a) disposing of a silicon substrate (20) comprising a sacrificial layer (26) of copper, deposited on the substrate and defining the inner shape of the hydraulic microcircuits (35, 36, 37); b) depositing on top of the outer surface of the sacrificial layer (26), by means of an electrochemical process, at least one protective, metallic coating layer (30); c) applying on the sacrificial layer (26) a non-photosensitive epoxy or polyamide resin (32), having a predetermined thickness and suitable for completely covering the sacrificial layer (26); d) effecting a polymerization of the resin (32) to increase its mechanical resistance to mechanical and thermal stresses and performing a planarization of the outer surface (33) of the resin (32), by means of a mechanical lapping and simultaneous chemical treatment; e) removing the sacrificial

layer (26) through a chemical etching, in a highly acid bath; f) depositing a metallic, protective layer (39) on the outer surface (33) of the resin (32), through vacuum evaporation.

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